Virginia Association of Counties
Comments in Response in response to
The DRAFT Chesapeake Bay TMDL
Issued on September 24, 2010

Comment [A1]:

Executive Summary

VACo Comments on EPA DRAFT TMDL

Comments emphasize commitment by local officials in improving water quality and stress financial investments made by many localities in upgrading wastewater treatment plants through installation of biological nutrient technology. The comments also stress amendments made by many localities over last 20 years in amending land use regulations to comply with Chesapeake Bay Preservation Act. Many of these actions have been helpful in achieving a 24 percent reduction in nitrogen loadings and a 27 percent reduction in phosphorus loadings into the Chesapeake Bay between 1985 and 2009.

- Local fiscal impacts: Chief among VACo's concerns to local fiscal impacts. For example, the consulting firm, CDM, estimated that the costs associated with urban stormwater retrofits expected by EPA in the Virginia portion of the Chesapeake Bay Watershed will range between $678 and $1,717 per household per year until 2025. *(To address the issue of cost and economic impacts, the comments suggested the establishment of high level study group similar to the Chesapeake Bay Blue Ribbon Panel. This Panel was chaired by former Governor Gerald Baliles and established in 2004 by the Chesapeake Bay Executive Council to "identify funding sources sufficient to implement basin-wide clean-up plans." After estimating total clean up costs to be $28 billion, the Panel's chief recommendation was the creation of a regional $15 billion Chesapeake Finance Authority. $12 billion would be capitalized through federal appropriations, and $3 billion from state contributions. These recommendations did not appear to receive serious consideration.)*

- Legal complications for localities: With respect to EPA expectations on urban storm water retrofits, VACo is also concerned about such legal issues affecting localities as right-of-entry to private property and vested rights, especially with respect to requiring stormwater retrofits and other enforcement functions.

- Agriculture: Consistent with a position in VACo's legislative program, the comments support long-term funding for agricultural Best Management Practices cost-share programs .

- Chesapeake Bay Model: Comments express concern about accuracy of the Chesapeake Bay model, which is a centrally important factor in determining pollutant reduction goals for each state, locality and "source sector." (The chief source sectors are point sources [wastewater treatment], agriculture, urban stormwater, and on-site waste water treatment.)

- "Reasonable Assurance:" Comments express concern about "reasonable assurance" as a standard used by EPA to evaluate adequacy of state Watershed Implementation Plans (WIPs). Many stakeholders have expressed concern that the standard is vague and can be applied too arbitrarily.

- Need for flexibility: The Chesapeake Bay TMDL should be flexible, and recognize likelihood of innovations over the next 15 years to expedite clean-up efforts (filter feeders, algae harvesting, wastewater land application for irrigation.)

Chief requests in comments: 1.) Create forum for understanding costs and how financial burdens should be distributed – especially urban stormwater retrofits; 2.) Extend deadline to correct model; 3.) Clarify meaning of "reasonable assurance;" 4.) Adopt flexible approach that will allow for innovations and allow time for an effective nutrient trading system to apply to non point sources.

The following comments were approved by the Virginia Association of Counties Board of Directors on November 7, 2010

The Virginia Association of Counties (VACo) is a statewide organization representing all of Virginia's 95 counties. VACo exists to support county officials and to effectively represent, promote and protect the interests of counties to better serve the people of Virginia.

VACo appreciates this opportunity to comment upon the Draft Chesapeake Bay Total Maximum Daily Load (TMDL) document issued by the U.S. Environmental Protection Agency (EPA) on September 24, 2010. VACo commends all who were involved with the DRAFT TMDL document.

VACo has a strong interest and stake in the success of efforts to restore water quality in the Chesapeake Bay. County officials share U.S. EPA's interest in improving the quality of all of Virginia's waters. Because of the Chesapeake Bay Program's status as a model to emulate for future restorative efforts in other parts of the United States, it is essential that the strategy for implementing the Chesapeake Bay TMDL have as its foundation a strong partnership where federal, state and local government stakeholders reach agreements on how responsibilities should be shared and costs should be distributed. For the reasons detailed below, it is VACo's belief that the DRAFT TMDL released by EPA on September 24 is not a reflection of that type of partnership.

On August 6, 2010 VACo's Environment and Agriculture Steering Committee adopted the following policy statement relating to water quality issues. This statement, which provides the context for the comments below, was adopted by the committee largely in response to discussions about the anticipated Chesapeake Bay TMDL:

VACo supports effective partnerships among and across all levels of government to improve water quality.

VACo urges state and federal agencies to carefully consider impacts on local governments of any initiatives intended to reduce loadings of pollutants into state waters from both point and non-point sources. In order for comprehensive, watershed-wide, water quality improvement strategies to be effective, major and reliable forms of financial and technical assistance from federal and state governments will be necessary. VACo supports the goal of improved water quality but will vigorously oppose provisions of any strategy that threatens to penalize local governments by withdrawing current forms of financial assistance or imposing monitoring, management or similar requirements on localities without providing sufficient resources to accomplish those processes.

VACo's comments (below) address the following seven aspects of EPA's Draft Chesapeake Bay TMDL:

- Fiscal and economic impacts upon local governments;
- The Accuracy of the Bay Model;
- Impacts of the DRAFT TMDL upon Agriculture;
- The Organizational Structure of Chesapeake Bay Program;
- Governance: "Accountability" and "Reasonable Assurance", and the Time Frame for Issuing the TMDL;
- The pending deadline for the Phase II WIP; and
- Consideration of more innovative and cost-effective measures.

Local government efforts to reduce pollutant loadings into the Chesapeake Bay are producing results. Between 1985 and 2009 nitrogen loadings into the Chesapeake Bay have declined from 86.5 million to 65.7 million pounds—a 24 percent reduction. Phosphorus loadings have declined from 11.31 million to 7.14 million pounds—a 37 percent reduction. These reductions have largely been achieved through the efforts local governments, the agricultural sector, and businesses.

In recent years many Virginia local governments, especially those in the Chesapeake Bay watershed, have invested heavily in upgrades to wastewater treatment systems and improvements to storm water management programs. Fifty-five publicly owned wastewater treatment plants have either installed, or are in the process of installing, biological nutrient removal systems

totaling $1.344 billion. More than half of this sum ($696.4 million) will have been paid for by Virginia's local governments (whose primary revenue source is the real property tax), with the remainder being financed through contributions from Virginia's Water Quality Improvement Fund and other sources.

This financial commitment demonstrates the dedication of state and local government officials in Virginia to the improvement of water quality. Furthermore, through these investments, many wastewater treatment plants have been upgraded to comply with stringent standards established by the Virginia Water Control Board to limit nutrient discharges. These standards are embodied in a Watershed General Permit that became effective on January 1, 2007. In addition, with support from local governments, Virginia has embraced an innovative credit exchange program that has become a model for the nation.

Over the past two decades, many of Virginia's counties have amended their respective land use regulations to minimize impacts to surrounding waters from new development. While acknowledging that more needs to be accomplished to improve water quality, local officials in Virginia have worked, and will continue to work, hard to assure that lands within their respective borders are responsibly managed for the protection on natural resources. VACo also has an interest in enhancing efforts by the agricultural community to improve water quality. With VACo's support, Virginia has invested $80 million into the Agricultural Best Management Practice (Ag BMP) cost-share program since 2006.

VACo is working with the Virginia Department of Conservation and Recreation (DCR) in the development of new state rules that will impose significant pollutant loading limits on new development. By statute, these new state storm water regulations must be adopted by the Virginia Soil and Water Conservation Board by December 11, 2011. VACo supports scientifically based limits on new development as a necessary measure for improving water quality.

These comments will address several the key issues associated with the DRAFT Chesapeake Bay TMDL, the first of which will be the anticipated fiscal and economic impacts that will profoundly affect local governments.

1.) <u>Fiscal and economic impacts upon local governments</u>

Unlike EPA, local governments have a fiduciary responsibility to the citizens they serve to seek the most cost-effective solutions available. EPA's refusal to engage in frank discussions about economic impacts is a disservice to the public. Instead of representing a healthy, collaborative partnership, the Chesapeake Bay DRAFT TMDL is more reflective of a "command and control" model demanding an "E3" ("everything done by everybody everywhere") approach that is highly unrealistic, prohibitively expensive, and undermines the regulatory stability needed for the proper management of wastewater facilities. Furthermore, representatives from EPA have stated

in public meetings with stakeholders in Virginia that EPA will not consider economic impacts, affordability or cost effectiveness as part of the process for developing a TMDL.

Characteristic of EPA's aggressive approach is the employment of "backstop allocations." EPA's establishment of backstop allocations will place local governments in an extremely difficult and unfair position. Local governments will be penalized if they fail to achieve pollutant reductions from multiple sources that they have not historically been responsible for regulating, nor had the legal authority to control. One chief area of concern is storm water retrofits, where local governments would be held responsible for correcting design flaws in storm water systems that have been constructed over the past century or longer. While VACo concurs that upgrades to many of these systems throughout Virginia may be desirable for improving water quality and often necessary to address flood control problems, EPA's timetable for requiring them is highly unrealistic and a potential source for extreme fiscal stress upon localities throughout Virginia. For example, the consulting and engineering firm CDM, has estimated that the cost associated with urban storm water retrofits in the Virginia portion of Chesapeake Bay watershed will range between $678 and $1,717 per household per year until 2025.

Recently, two independent consulting firms completed studies estimating that the annual cost for construction associated with storm water retrofits in Fairfax County, Virginia alone would amount to $250 million, or more. Currently, Fairfax County finances its storm water system through a dedicated real estate tax of $.015 per $100 in assessed value of real property. This translates to an average of about $70 per year per residential unit. A $250 million annual cost for storm water retrofits in Fairfax County under the DRAFT TMDL translates to an annual increase in the yearly storm water assessment from $70 to $630 per household.

Estimates for Fairfax County are consistent with analyses that have been conducted in other parts of Virginia. For example, an analysis conducted by the Hampton Roads Planning District Commission in the southeastern region of Virginia (HRPDC) has estimated that per capita costs on an annual basis would range between $284 and $658 in its 12-member jurisdictions. Please see the table showing anticipated BMP costs and annual per capita costs for each HRPDC locality:

Locality	Annual Total BMP Cost (in millions)	Annual Total Per Capita Cost
City of Chesapeake	$98	$437
City of Hampton	$75	$509
City of Newport News	$83	$461
City of Norfolk	$99	$419
City of Portsmouth	$48	$472
City of Virginia Beach	$124	$284

Isle of Wight County	$17	$460
James City County	$36	$546
City of Poquoson	$6	$526
City of Suffolk	$45	$528
City of Williamsburg	$7	$510
York County	$42	$658
Cost figures are based upon retrofitting 19 percent of land with BMPs and remaining pollutant reductions achieve with storage and reuse.		

Even in times of robust economic growth, the economic impacts of this magnitude upon local governments and taxpayers in Virginia would be unsustainable. Under current economic circumstances, these impacts are especially damaging. Please consider these realities under which Virginia's local governments have operated in recent years:

- Because of the state's fiscal conditions, state aid to localities has fallen by $1 billion since 2008.
- These cuts in state aid have affected the resources dedicated to the funding of our public schools, mental health programs, social services and public safety.
- The fiscal conditions of recent years have forced many local governments in Virginia to cut back services and their workforces.
- Between June, 2009 and June, 2010, 15,600 local government jobs in Virginia disappeared.

For at least the next few years, Virginia's local governments are likely to operate under similar economic conditions. These points, however, are not being made to suggest that local governments do not have responsibilities, and should not be active partners in improving water quality. VACo's chief contention is this: **there is a major role that federal and state governments must play in providing meaningful financial assistance to local governments if Chesapeake Bay restoration efforts are to succeed**. To achieve the water quality goals established by EPA, federal and state agencies must also be partners in helping local governments find the most cost-effective approaches possible.

Recommendation:

Establish a high-level forum similar to the 2004 Chesapeake Bay Watershed Blue Ribbon Panel for analysis of fiscal and economic impacts and negotiations among Bay Partners on how financial responsibilities should be shared. This Blue Ribbon Panel was composed of 15

distinguished leaders from the private sector, government and the environmental community and chaired by former Governor Gerald Baliles. It was established by the Chesapeake Bay Executive Council "to identify funding sources sufficient to implement basinwide clean-up plans" to restore water quality in the Chesapeake Bay.

One chief criticism by the Panel was that past efforts to restore Chesapeake Bay were "poorly coordinated" partly because of their lack of "a permanent funding base that is sufficiently large to do the job" (Please see *Saving a National Treasure: Financing the Cleanup of the Chesapeake Bay*, A Report to the Chesapeake Executive Council from the Chesapeake Bay Watershed Blue Ribbon Panel, October 2004). To correct these major deficiencies, both in the areas of funding and coordination, the Panel recommended the establishment of a $15 billion interstate Chesapeake Bay Financing Authority; $12 billion of which would be capitalized through federal appropriations, with the remaining $3 billion contributed by the states in the Chesapeake Bay watershed and the District of Columbia. Unfortunately, the Panel's recommendations were quickly and summarily dismissed and now seem largely forgotten.

The imperative for federal leadership in assuming a greater share of financial responsibility was underscored in 2004 when the Chesapeake Bay Watershed Blue Ribbon Advisory Panel issued a report stating that the "most up-to-date cost of implementing all strategies (associated with restoring the Chesapeake Bay) is $28 billion in total upfront capital costs, including some items that are primarily for the benefit to local waters, and not the Bay itself." If the Chesapeake Bay is truly regarded as the "national treasure" as characterized in President Barack H. Obama's Executive Order 13508, the Blue Ribbon Panel's recommendations must be resurrected for serious consideration. As the Panel's recommendations are reconsidered, there must also be updated analysis of full program costs that take into consideration changes in economic conditions that have transpired over the past six years.

2.) <u>Bay Model Accuracy</u>

The Chesapeake Bay Model serves as the basis for determining nutrient and sediment loading limits. It also determines the financial expenditures stakeholders will need to make in order to satisfy EPA expectations. It is therefore extremely important for the Bay Model to be accurate. By EPA's own acknowledgement, there are flaws in the Chesapeake Bay Model. Some observers have criticized the Model for rejecting verified, ground-level data from Virginia that is inconsistent with the "modeled" land use data. For example, in 2010 the Virginia Cooperative Extension (VCE) conducted a field observation study in the Coastal Plain and found that 90 percent of the planted crop acres were in no-till farming. VCE's findings conflicted with

information provided earlier by DCR indicating that only 15 percent of this acreage had been enrolled in the Virginia Department of Conservation and Recreation's no-till program.

To assess the effect of agricultural practices EPA's model will only accept information from authorized sources. In Virginia these sources would be state agencies like DCR that collect information based upon practices that are involved in DCR's agricultural cost-share programs. That means that actions taken outside of a cost-share program (i.e. no-till farming in this case) have not been accounted for in the Model or loading estimates for agriculture.

With respect to other flaws in the model, it is also VACo's understanding that:

- The current version of EPA's model fails to include 139 active Virginia point sources. It is also VACo's understanding that while EPA is aware of this omission, it has not been corrected due to a lack of time.
- The above failure by EPA to update the information underscores another problem caused by the rush to comply with an arbitrary deadline.
- In 2008, the Scientific and Technical Advisory Committee (SCAT) reviewed the Phase 5 watershed model and determined that it needed to be recalibrated and re-segmented in order for it to be appropriate for application at the local level. It is VACo's understanding that no action was taken by EPA in response to SCAT's recommendation. However, the Bay Program is continuing to promote this model for use at the local level when the (locality-specific) Phase II WIPs are being developed by EPA's deadline of November 1, 2011. Because information from the model will be used for determining local pollutant limits, VACo is very concerned that many decisions will be based upon inaccurate information.

Recommendation:

VACo understands that no model will yield a perfectly accurate portrayal of reality. However, flaws in the current model are substantially serious and need correction. VACo believes that more time should be allowed for making those corrections before the final TMDL is issued. VACo also supports 1.) an evaluation of the Chesapeake Bay Model by the General Accountability Office, and 2.) a reasonable postponement in the TMDL deadline to allow for evaluations and corrections of the model to take place. A postponement in the deadline will also provide time for the public to gain a better understanding of how EPA's Chesapeake Bay model actually works.

To safeguard against the rigidity that could be associated with an overly model-centric approach, it will be important for the Chesapeake Bay model to be continually evaluated through the life of

the Chesapeake Bay Program. This should allow for more flexible (or adaptive) management approaches at the local level.

3.) Impacts upon agriculture

Agriculture serves as the economic base for many of Virginia's counties. For economic, environmental and other reasons, Virginia's county officials have a major interest in protecting the agricultural character of their communities. Regulatory approaches that excessively burden the farming community will threaten the long-term viability of agriculture as a major industry in Virginia. This is especially true if regulations become such a serious cost driver that farm owners will decide to convert their lands to more intensive uses, a phenomenon that introduces an entirely new set of future environmental problems. According to Section 4.7 of the Draft Chesapeake Bay TMDL, agricultural lands account for 22 percent of the watershed. Many county officials have interest in preventing a reduction in this percentage.

VACo is mindful of the fact that the most cost-effective actions for reducing non point source pollutant loadings are through agricultural Best Management Practices. Many farmers are interested in participating in cost-share programs, however funding, whether from state or federal sources have often been sporadic and unpredictable. Several years ago Virginia's General Assembly created the Natural Resources Commitment Fund, which assures that at least some percentage of Virginia's Water Quality Improvement Fund will be allocated to agricultural cost-share programs. Unfortunately, farmers may decline to participate in these programs if the availability of these funds varies with changing economic conditions.

Page 7-3 of the DRAFT TMDL provides some discussion of the role that federal funds (through the Farm Bill and other sources) can play in assisting farmers. However, the commitment in the narrative to sustained federal funding is weak, vague and provides little assurance of funding on a long-term basis needed to encourage more participation among farmers. Since Virginia's DRAFT WIP requires a 95 percent participation rate by the agriculture sector in order for its pollutant reduction goal to be met, adequate funding for the agriculture BMP cost-share program is critical. Also critical, is the inclusion of information about practices that have already been employed by farmers throughout the Chesapeake Bay watershed on a voluntary basis.

In 2009, DCR conducted a Natural Resources Commitment Fund Needs Analysis and concluded that a total of $618.1 million would be needed over the next fifteen years (2011–2025) to financially support the cost share program at a level sufficient to achieve 60 percent of the non-point source pollution reduction goals for agriculture.

Below is the table provided in the 2009 Natural Resources Commitment Fund Needs Analysis (written by DCR and legislature in October 2009). Dollar figures are in millions.

FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
$22*	**$24.3**	**$26.6**	**$28.9**	**$31.2**	**$33.9**	**$36.1**	**$38.4**	**$40.7**	**$43**	**$54**	**$56.3**	**$58.6**	**$60.9**	**$63.2**

* Does not include additional $5.4 million necessary to meet 2011 milestone (With milestone needs included, total need for FY 11 would be $27.4 million in the Chesapeake Bay watershed)

Recommendation:

VACo supports well-financed state and federal programs to address the problem of non-point source runoff from agricultural operations that would effectively encourage implementation of priority best management practices such as nutrient management planning, use of cover crops, continuous no-till farming, development of forested riparian buffers, and livestock stream exclusion. In this area, more financial assistance from the federal government is needed to encourage sustained participation in agricultural BMP cost-share programs. A system should be developed that takes an inventory, and grants credits for, agricultural best management practices undertaken on a voluntary basis over the past few years.

4.) <u>Chesapeake Bay Program's Organizational Structure</u>

Page 1 -8 of the DRAFT TMDL provides an organizational chart and devotes several paragraphs to a description of the Chesapeake Bay Program's (CBP) structure. As the chart illustrates, local government input is sought from the Local Government Advisory Committee which is located on the periphery of the decision-making process. Since the majority of expenditures and implementation of policies to improve water quality occur at the local level, VACo believes local government officials need to be more centrally positioned within the Chesapeake Bay Program's decision-making process.

Recommendation:

VACo recommends the inclusion of technical experts from local governments on the Principals' Staff Committee.

5.) Governance: "Accountability" and "Reasonable Assurance", and the time frame for issuing the TMDL

Section 7 of the DRAFT document provides a narrative relating to the "reasonable assurance and the accountability framework." Because the meaning of "reasonable assurance" remains vague, the term has generated much discussion in Virginia. Because EPA has provided little information to help states understand when the requirement relating to "reasonable assurance" is satisfied in each state's Phase I Draft Watershed Implementation Plan (WIP), VACo is concerned that the "reasonable assurance" standard will be applied arbitrarily based upon the subjective judgments by reviewers at EPA.

It is VACo's understanding that there is no regulatory definition of "reasonable assurance," although one was proposed, and subsequently withdrawn in 2000 following a public comment process that generated considerable opposition from diverse stakeholders. (*Withdrawal of Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions t the Water Quality Planning and Management Regulation 68 Fed. Reg. 13,608, 13,609 [March 19, 2003*]). Without a regulatory definition of "reasonable assurance" that has been incorporated into the Federal Code of Regulations, VACo questions the authority of EPA to establish "reasonable assurance" in the TMDL process as a standard for approving each WIP submitted by states in the Chesapeake Bay watershed.

VACo is also concerned about the punitive nature of Section 7 of the TMDL because it threatens to deny federal resources to states and localities failing to meet EPA expectations. Most often, the failure to meet these expectations will, more than likely be due to a shortage of local resources to begin with. This is not characteristic of a fair partnership.

For many nonpoint source pollution problems, local governments are being held responsible for certain forms of pollution that are beyond the ability of many communities' ability to control, either due to a lack of financial resources, or a lack of statutory authority. For example, during the discussions about the DRAFT TMDL by Virginia's Stakeholders Advisory Group (SAG), suggestions were made that localities should regulate the retail sale and consumer use of fertilizers and other lawn care products. Requirements like these could impose a tremendous burden on localities and affect their ability to perform other law enforcement responsibilities. Furthermore, there is no specific statutory authority for Virginia's local governments to undertake these kinds of responsibilities. Mandates like these also bring to the forefront several a complicated legal issues, such as right-of-entry to private property and vested rights

The schedule of deadlines under the Chesapeake Bay TMDL program appears arbitrary. Many policy decisions sought by EPA require legislative actions that can only be taken after the December 31, 2010 deadline for the Phase 1 TMDL to be issued. When developing its schedules

and deadlines for certain tasks to be achieved, there appeared to be no consideration by EPA of each state's respective legislative or budgetary cycle. Another problem with EPA's schedule is that it has left little time for states to make thoughtful approaches in the development of nutrient credit exchange programs applicable to non point sources.

Recommendation:

Through improved storm water control and other programs, local government officials are willing to assume a reasonable share of responsibility for reducing non point source pollution problems. In the meantime officials at the state and federal levels may wish to consider policy changes that could result in significant reductions in non point source pollution. This is an area where it would be most appropriate for federal and state regulation to come into play, as it did when phosphates were banned from laundry detergents. Along those lines, there should be similar evaluations at the state and federal level of fertilizers and other commonly used products that are carried into state waters in storm water run-off.

To upgrade aging urban storm water systems in many urban areas, VACo suggests that the federal government assume a leadership role in developing an aggressive incentive program, with grants, low interest loans, and other financial inducements to encourage local and state governments to upgrade older infrastructure and improve the performance of existing storm water systems. Under this program, several different types of projects could be eligible for funding, including stream bed restoration, Low Impact Development (LID) projects, and others. Also, since air depositions have been identified as a major source of nutrient loadings, EPA should consider additional reductions for stationary and mobile sources with air emissions. The Chesapeake Bay Program Office (CBPO) has estimated that atmospheric sources account for about one third of the nitrogen reaching the Bay, and the majority of this load is attributable to areas outside the Chesapeake Bay watershed (EPA, 2010).

6.) <u>Phase 2 TMDL – not nearly enough time provided when considering the complexity of the task</u>.

The March 10 issue of the Chesapeake Bay Journal had this description of the Phase II WIP process:

> "(The Phase II WIP) will set nutrient and sediment goals to more local levels, probably counties. The goal is to make the nutrient and sediment goals more "real" for local governments, agencies and conservation districts that will actually need to take most of

the actions. The local allocations are also intended to improve accountability, and the ability to track nutrient and sediment control actions."

VACo has already expressed many concerns over the time frame for developing and issuing the Chesapeake Bay TMDL. A deadline of November 1, 2011 for states to submit to EPA the locality-specific Phase II WIP is highly unrealistic.

Recommendation:

VACo's first preference is that the November 1, 2011, deadline be extended. If extension of the deadline is not an option, EPA needs to be extremely flexible in its enforcement of the deadline for states to submit the Phase II WIP. Over the past year, many local governments have reduced their staffs due to serious revenue shortfalls.

7.) <u>Consideration of more innovative and cost-effective measures</u>

The DRAFT TMDL fails to adequately consider the benefits increasing filter feeder populations (oysters, Atlantic menhaden) as a component of restoration efforts. The DRAFT TMDL also fails to acknowledge and incorporate such other innovations as algae harvesting for renewable energy, and land application of treated wastewater for irrigation purposes.

Recommendation:

The TMDL's language should be more flexible and be more receptive toward an adaptive management approach recognizing that over a 15-year period there will be technical advancements yielding vast improvements to restoration efforts in terms of efficiency and cost-effectiveness. For example, EPA's TMDL for the Chesapeake Bay should include the following practices as important restoration activities that could generate saleable credits to help all source sectors meet their pollutant reduction goals: the cultivation of filter feeder populations, the harvesting of algae, land application of treated wastewater, and other practices.

In order to allow for the utilization of innovative, more cost-effective practices that may emerge within the next few decades, VACo also believes the structure of the Chesapeake Bay Program should remain as flexible as possible.